In the claims:

1.	(Currently Amended) ~~A platform~~ Apparatus for supporting negotiation on values for at least three decision variables —between parties to achieve an ~~outcome~~outcome comprising of values to said decision variables, ~~the platform being a computerized apparatus~~ said apparatus comprising:

a party goal program having means for:

a) defining a respective party's goal program in respect of said outcome, said goal program used for setting values for said decision variables, comprising ~~at least one~~a plurality of constraints using said decision variables including a plurality of goals where each goal comprising at least one of a deviation variable, a decision variable and a target value, a plurality of objective ~~function~~functions, each objective function having at least one ~~goal expressed by at least one constraint comprising at least one of a~~deviation variable, ~~a decision variable and a target value, said deviation variable being usable to form said objective function,~~

b) associating each of said objective functions with a level of importance,

c) assigning in each objective function to each ~~of said~~deviation variable ~~goals~~ in said objective function an importance weighting within ~~its~~said objective function ~~level~~, and

d) ~~assigning to deviation variables within each objective function a respective importance weighting,~~said party goal program ~~unit~~means comprising a party input ~~unit~~ means for allowing a party to provide data for a respective goal program,

a negotiator means associated with said party goal program ~~unit~~means for:

(a) receiving a goal program of at least one of said respective parties, and

(b) carrying out negotiations using said at least one goal program by considering said objective functions levelwise in the respective goal program to approach at said mutually compatible outcome by carrying out minimization at a respective level, therewith to form an offer,

an output means for offering said offer to said respective parties,

a response receiver means for receiving from respective parties either counter offers or acceptances, said response receiver means for providing counter offers expressed as modified goal programs to said goal program negotiator for further negotiation, said ~~platform~~apparatus advancing to a next level upon an acceptance.

2. - 122. (Canceled)

123.   (Currently Amended) ~~A   platform~~Apparatus for supporting negotiation between parties to achieve an outcome, ~~the platform being a computerized apparatus~~ comprising:

a party goal program means comprising a party input means ~~to allow~~for each party to define a plurality of goals in respect of said outcome, and to associate each of said goals with a respective level of importance, therefrom to form for each party a goal program,

said party input means being operable to obtain a target value and upper and lower bounds relating to ~~at least one of said~~ each of said plurality of goals, said party goal program means for using said upper and lower bounds to express deviations from said target values in relative terms, thereby to render deviations from different goals' targets comparable.

124 - 137. (Canceled)

138.   (Currently Amended) ~~A platform~~Apparatus for supporting negotiation between parties to achieve an outcome, ~~the platform being a computerized apparatus~~ comprising:

a party goal program having means comprising a party input means ~~to allow a party to define~~ for defining ~~at least one~~a plurality of goal ~~program~~programs, each having a plurality of goals in respect of said outcome, and to associate a goal constraint of ~~at least one~~ respective ones of said goals with a range of indifference having an upper bound and a lower bound, a first weighting value for deviations below said lower bound, a second weighting value for deviations above said upper bound and a relative importance for said goal constraints,

and a negotiator means, associated with said goal program means, for using said range of indifference, said weightings and said relative importance to obtain an outcome for said at least one goal in view of other goals, by producing successive offers.

139 - 145. (Canceled)

146.   (Currently Amended) ~~A platform~~Apparatus for supporting negotiation between parties to achieve an outcome, ~~the platform being a computerized apparatus~~ comprising:

a party goal program ~~having~~ _having_ means comprising a party input ~~means~~_unit_ ~~to permit a party to define~~ _for defining_ a two dimensional trade-off goal constraint by entering two two-dimensional points, said party goal program unit being operable to define a trade-off line between said two points, and

a negotiator means, associated with said goal program means, said negotiator means using said trade-off line to solve said goal program containing said at least one trade-off goal constraint taking into account _a plurality of_ other constraints to arrive at said outcome via a series of successive offers.

147 – 157. (Canceled)

158. (Currently Amended) ~~A platform~~_Apparatus_ for supporting negotiation between parties to achieve an outcome, ~~the platform being a computerized apparatus~~ comprising:

a party goal program _having_ means comprising a party input ~~means~~_unit_ for ~~allowing a party to define~~ _defining_ ~~at least one~~_a plurality of_ single dimension two-point goal ~~constraint~~ _constraints_ in respect of said outcome, and to associate ~~said~~_each_ goal constraint with an upper point of preference, and a lower point of preference, a first weighting value for deviations below said lower point of preference, and a second weighting value for deviations above said upper point of preference, said goal program unit being operable to provide weightings to a region included between said points of preference by assigning said first weighting value below said upper point of preference and said second weighting value above said lower point of preference and defining an overall weighting within said region as a minimum of said weighting values;

and a negotiator means, associated with said goal program means, said negotiator means for using said included region, said weightings, and said minimum to consider said ~~at least one~~_plurality of_ goal ~~constraint~~_constraints_ with other goal constraints to arrive at successive offers to achieve said outcome.

159 - 166. (Canceled)

167. (Currently Amended) ~~A platform~~_Apparatus_ for supporting negotiation between parties to achieve an outcome, ~~the platform being a computerized apparatus~~ comprising:

a party goal program ~~having~~ means comprising a party input ~~means~~ unit for ~~permitting parties to define~~ defining goal constraints comprising pairwise variable trade-offs having at least two points and a trade-off function for deviating from a line drawn between said points, wherein said party goal program unit is operable to prevent inconsistent inclination values to be defined within the ~~platform~~ apparatus by preventing said party input unit from accepting more than one trade-off that refers directly or indirectly to a same pair of variables,

and a negotiator means for negotiating with other parties via goal programs to achieve an outcome consistent with said constraints.

168. (Currently Amended) ~~A platform~~ Apparatus for supporting negotiation between parties to achieve an outcome, ~~the platform being a computerized apparatus~~ comprising:

a party goal program ~~having~~ means comprising a party input ~~means~~ unit for ~~permitting parties to define~~ defining a plurality of constraints relating to pairwise trade-offs, each pairwise tradeoff having at least two points and a trade-off function for deviations from a line extending therebetween, wherein said party goal program unit is operable to warn users of inconsistent inclination values by outputting a warning whenever a trade-off being entered refers directly or indirectly to a pair of variables already included in a previously entered trade-off, and

a negotiator means for negotiating with other goal programs to achieve an outcome consistent with said constraints.

169. (Currently Amended) ~~A platform~~ Apparatus for supporting negotiation between parties to achieve an outcome, ~~the platform being a computerized apparatus~~ and comprising:

a party goal program ~~having~~ means comprising a party input ~~unit~~ unit for allowing a party to define ~~at least one~~ a plurality of objective ~~function~~ functions in respect of said outcome, and to associate ~~said~~ respective objective ~~function~~ functions with a series of variables and disjunctive constraints, said goal program unit comprising a disjunctive constraint processor for translating a disjunctive expression into at least one linear conjunctive expression,

and a negotiator means, associated with said means of said party goal program ~~unit~~, said negotiator means for using said series of variables including said linear

conjunctive expression to negotiate an outcome consistent with said goal program and with other goal programs.

170 – 198. (Canceled)

199.   (Currently Amended) ~~A platform~~Apparatus for supporting negotiation between parties to achieve an outcome, ~~the platform being a computerized apparatus~~ comprising:

a party goal program having means for defining goal programs in respect of an outcome, the _means ~~goal program~~ ~~unit~~ comprising a party input ~~means~~ unit for ~~allowing a party to~~ input of data relating to said goal program, said goal program unit being operable to translate said ~~values~~ data into a plurality of objective functions and a plurality of constraints ~~on~~ for respective ~~said~~ objective functions within said goal program,

and a negotiator means, associated with said means for defining goal ~~program~~ goal programs ~~means~~, said negotiator means being for finding best values for said objective functions under constraints, therewith to obtain a best solution for the goal program for output as a first offer, and then iteratively to produce further solutions until an offer is accepted, thereby to achieve said outcome.

200 - 214. (Canceled)

215.   (Currently Amended) ~~A platform~~Apparatus for supporting negotiation between parties to achieve an outcome, ~~the platform being a computerized apparatus~~ and comprising:

a party goal program having means for defining goal programs in respect of an outcome, each goal program having a plurality of candidate solutions in respect of said outcome, said means ~~the goal program means~~ comprising a party input ~~means~~unit for ~~allowing a party to~~ input of values, said goal program means being for translating said values into a plurality of objective functions and respective constraints on said objective functions within said goal program,

and a negotiator means, comprising a solution sorter means for comparing said goal program candidate solutions by evaluation of said goal program for each one of a series of proposed candidate solutions and ranking the candidate solutions according

to said evaluations, said negotiator being operable to use said ranking to apply preference to different solutions.

216 - 224. (Canceled)

225.   (Currently Amended) ~~A platform~~Apparatus for supporting negotiation between a local party and an opponent party to achieve an outcome, ~~the platform being a computerized apparatus~~ and comprising:

a goal program input means for receiving a local party's goal program and an opponent's goal program to be unified, said goal programs each comprising a plurality of objective functions associated with respective constraints and being arranged in successive levels,

an optimizer means for finding best solutions to goal programs, connected to find best values for said plurality of objective functions and respective constraints of said local party's goal program levelwise, and

a worst case calculator means for finding worst solutions for goal programs, connected to find worst values for said plurality of objective functions and respective constraints of said opponent's goal program levelwise,

said ~~platform~~ apparatus for negotiating being operable to:

use said optimizer means and said worst case calculator means in succession level by level to produce successive best local and worst opponent value sets for evaluation therefrom to form level by level offers, and
to advance from one level to another level only following acceptance by said parties of an offer regarding a previous level.

226 - 234. (Canceled)

235.   (Currently Amended) ~~A platform~~Apparatus for supporting negotiation between a local party and an opponent party to achieve an outcome, ~~the platform being a computerized apparatus~~ comprising:

a negotiator means, and

a goal program input means for receiving a local party's goal program, said goal programs comprising a plurality of objective functions associated with respective constraints and being arranged in levels,

the negotiator means comprising:

an optimizer means for finding best solutions to goal programs, connected to find best values for said plurality of objective functions under respective constraints of said local party's goal program levelwise, and

a stay close processor means for determining variable improvement directions from monitoring of received offers from said opponent and carrying out value perturbations in said directions,

said negotiator means further being for:

using said optimizer means to produce a first offer for a first level,

to advance from one level to another level only following acceptance by said parties of a unification offer regarding a previous level, and

using said stay close processor means to produce a first offer for each subsequent level.

236 - 250. (Canceled).

251. (Currently Amended) A resource negotiator apparatus for making successive offers for usage of a resource with at least one remote party based on a goal program of a local party, the goal program comprising a plurality of objective functions, at least one of said objective functions having a goal associated with a target value, an upper bound, a lower bound and at least one constraint, the resource negotiator being a computerized apparatus comprising:

an input means unit for receiving data from said remote party from which to formulate a goal program for a local party and for a remote party, the goal program comprising a plurality of constraints and a plurality of objective functions, said objective functions having respective goals, each goal associated with a target value, with at least one of an upper bound, and a lower bound and at least one constraint respectively,

a minimizer means for producing successively worsening minimizations of said goal program, and

an offer formulator means, associated with said minimizer means, configured for formulating said minimizations into offers for resource usage for sending to said remote party.

252 - 265. (Canceled)

266.   (Currently Amended) A resource negotiator <u>apparatus</u> for negotiating for usage of a resource with a plurality of remote parties based on a goal program of a local party, ~~the goal program comprising a plurality of objective functions with associated goal constraints, at least one of said goal constraints having at least one variable with an upper bound, and a lower bound, the resource negotiator being a computerized apparatus~~ and comprising:

an input means for receiving data from said remote parties <u>from which to formulate said respective goal programs, the respective goal program comprising a plurality of objective functions with associated goal constraints, at least one of said goal constraints having at least one variable with at least one of an upper bound, and a lower bound</u>,

an objective function minimizer means for calculating a value required to be provided by remote parties of ~~said at least one~~<u>respective</u> objective ~~function~~<u>functions</u>, and

an offer acceptor means, associated with said minimizer means, for receiving offers from said remote parties, comparing said calculation with said offers and for accepting one of said offers based on said minimizations.

267 - 275. (Canceled)

276.   (Currently Amended) A resource negotiator <u>apparatus</u> for negotiating for usage of a resource with a plurality of remote parties based on a goal program of a local party, ~~the goal program comprising at least one objective function having at least one goal comprising a variable assignable with at least one of an upper bound, and a lower bound,~~ the resource negotiator being a computerized apparatus and comprising:

<u>an input means for receiving data to formulate said goal program of said local party, the goal program comprising a plurality of objective functions, each having at least one goal comprising a variable assignable with at least one of an upper bound, and a lower bound,</u>

an active bid monitor means for monitoring remote parties remaining in said negotiating,

a resource quality increaser means for successively decreasing a <u>respective</u> value of ~~said at least one~~<u>each of said plurality of</u> predetermined objective ~~function~~<u>functions</u>,

an offer acceptor means, associated with said active bid monitor means and with said quality increaser means, for ending said negotiation at a time at which only a predetermined number of remote parties remains active, and at a corresponding value of said at least one predetermined objective function, said offer acceptor being operable to deem said negotiation successful if said corresponding value is within any assigned bounds, said predetermined number being related to a number of available resources.

277 – 284. (Canceled)

285.   (Currently Amended)   A platformApparatus for performing ranking between database entries, each of said entries comprising a series of values arranged in fields, the platform being a computerized apparatus and comprising:

a goal program having means for taking data from a user and defining therewith a goal program having a plurality of variables, said plurality of variables thereof being related to said fields, and

a ranking unit means for performing ranking amongst said entries in accordance with said goal program and said plurality of variables.

286 – 300. (Canceled)

301. (Currently Amended) A platformApparatus for supporting negotiation between parties to achieve an outcome, the platform being a computerized apparatus and comprising:

an input means for receiving an overall deal request from a first party relating to multiple items, and having a plurality of parameters, and availability data from at least one second party relating to available items,

a deal partitioner means for partitioning of said deal request into a plurality of sub-deals each corresponding to at least one item of said sub-deal request that is to be obtained from a single second party, such that said deal request overall is applicable to one or more second parties, and

a deal minimizer means for selecting second parties for each sub-deal such as to minimize a plurality of parameters including a cost parameter for said first buyer for said deal request.

302 – 337. (Canceled)

338. (New) Apparatus according to claim 1, wherein said party input unit is further operable to allow input of variables in association with said objective functions and a collection of discrete values for at least one of said variables, each of said discrete values associated with a weight of importance, said negotiator being operable to use said series of variables including said collection of discrete values and their weight of importance to negotiate an outcome in respect of said at least one objective function with other objective functions, thereby to arrive at formation of an offer.

339. (New) Method for supporting negotiation between parties to achieve an outcome, the method using a computerized apparatus, the method comprising:

a) defining a goal program of a respective party in respect of said outcome comprising at least three decision variables, said goal program comprising a plurality of objective functions, each objective function having at least one associated goal constraint expressed by at least one deviation variable, one decision variable and said decision variable target value,

b) associating each of said objective functions with a level of importance,

c) assigning each of said goals an importance weighting within its level, and

d) assigning to deviation variables within each objective function a respective importance weighting, said party goal program means comprising a party input unit for allowing a party to provide data for a respective goal program,

a) receiving a goal program of at least one of said respective parties, and

b) carrying out negotiations using said at least one goal program by considering said objective functions levelwise in the respective goal program to approach successively at said mutually compatible outcome by carrying out minimization at a respective level, therewith to form an offer,

offering said offer to said respective parties,

receiving from respective parties either counter offers or acceptances,

providing counter offers expressed as modified goal programs for further negotiation, and advancing to a next level upon an acceptance.

340.   (New)   Method according to claim 339, further receiving goal programs of respective parties, and carrying out unification of said goal programs to determine whether two goal programs have a common field of interest from which a mutually compatible outcome is derivable.

341.   (New)   Method according to claim 339, comprising arranging goal constraints levelwise in a first party's goal program such that conditional weakening from said outcome for a goal in a trade-off involves strengthening of other goals within the same level of said first party.

342.   (New)   Method according to claim 339, comprising arranging goals levelwise in a first party's goal program such that goals of a given level are negotiated with goals of a same level of another party.

343.   (New)   Method according to claim 339, comprising placing said objective functions in a hierarchy according to the respective associated level of importance, and to express each goal in terms of at least one decision variable and at least one deviation variable.

344.   (New)   Method according to claim 339, comprising:

requesting a decision variable interval, and a penalty specification for deviating from a target within said interval, and

defining a working interval as an intersection between respective intervals of two parties.

345.   (New)   Method according to claim 339, comprising:

defining, at one party, at least one single dimension interval goal in respect of said outcome,

associating said goal with a range of indifference having an upper bound and a lower bound, a first weighting value for deviations below said lower bound, a second weighting value for deviations above said upper bound and a relative importance for said goal, and

using said range of indifference, said weightings and said relative importance to unify said at least one goal with at least one other goal to determine compatibility.

346.   (New) Method according to claim 339, comprising defining a two dimensional trade-off goal constraint by entering two two-dimensional points, said defining providing a trade-off line between said two points.

347.   (New) Method according to claim 339, comprising defining goals having pairwise variable trade-offs with at least two points and a trade-off function defined for distance from a line joining said points, and preventing inconsistent trade-offs from being defined by not accepting more than one trade-off from referring, directly or indirectly, to any given pair of decision variables.

348.   (New) Method according to claim 339, comprising:

defining disjunctive constraints in respect of decision variables,

translating a disjunctive expression into a plurality of conjoined expressions, and

utilizing said conjoined expressions to unify said at least one disjunctive constraint with other constraints to determine compatibility.

349.   (New) Method according to claim 339, comprising:

receiving an input of variables in association with said objective functions and a linkage between a first and a second of said variables, said linkage defining a trade-off line and deviations thereof with respect to said target values, and

using said series of variables including said trade-off line to negotiate an outcome in respect of said at least one objective function with other objective functions, thereby to arrive at formation of an offer.

350.   (New) Method according to claim 339, comprising:

receiving a local party's goal program and an opponent's goal program to be unified therewith, said goal programs comprising objective functions associated with deviation variables of goal constraints and being arranged in levels,

finding best solutions to goal programs, connected to find best values for said objective functions and constraints of said local party's goal program levelwise,

finding worst solutions for goal programs, connected to find worst values for said objective functions and constraints of said opponent's goal program levelwise,

with said best and worst solutions in succession, level by level producing successive value sets for evaluation therefrom to form level by level unification offers, and

advancing from one level to another level only following acceptance by said parties of a unification offer regarding a previous level.

351.   (New) Method according to claim 339, comprising:

receiving a local party's goal program, said goal program comprising objective functions associated with deviation variables of goal constraints and being arranged in levels, and said negotiator further comprises:

finding best solutions to goal programs, connected to find best values for said objective functions of said local party's goal program levelwise, and

determining variable improvement directions from monitoring of received offers from said opponent and carrying out value perturbations in said directions,

using said optimizer to produce a first offer for a first level,

advancing from one level to another level only following acceptance by said parties of an offer regarding a previous level, and

producing a subsequent offer, thereby to arrive at said outcome.

352.   (New) Method according to claim 339, comprising:

jointly solving of said local and said other goal program to form a joint goal program comprising optimal solutions for each of said local and said other goal program,

determining whether there lies a single solution that includes both optimal solutions within said common ground, and if so, terminating negotiations with said single solution as an outcome.

353.   (New) Method for supporting negotiation between parties to achieve an outcome, the method using a computerized apparatus, the method comprising:

defining a plurality of goals in respect of said outcome,

associating each of said goals with a respective level of importance, therefrom to form for each party a goal program,

obtaining a target value and upper and lower bounds relating to each of said plurality of goals, and

using said upper and lower bounds to express deviations from said target values in relative terms, thereby to render deviations from different goals' targets comparable.

354.   (New) Method for supporting negotiation between parties to achieve an outcome, the method using a computerized apparatus, the method comprising:

defining a plurality of goal programs, each having a plurality of goals in respect of said outcome, and to associate a goal constraint of respective ones of said goals with a range of indifference having an upper bound and a lower bound, a first weighting value for deviations below said lower bound, a second weighting value for deviations above said upper bound and a relative importance for said goal constraints, and

using said range of indifference, said weightings and said relative importance to obtain an outcome for said at least one goal in view of other goals, by producing successive offers.

355.   (New) Method for supporting negotiation between parties to achieve an outcome, the method using an electronic processor, the method comprising:

defining a two dimensional trade-off goal constraint by entering two two-dimensional points, said party goal program unit being operable to define a trade-off line between said two points, and

using said trade-off line to solve said goal program containing said at least one trade-off goal constraint taking into account a plurality of other constraints to arrive at said outcome via a series of successive offers.

356.   (New) Method for supporting negotiation between parties to achieve an outcome, the method using a computerized apparatus, the method comprising:

defining a plurality of single dimension two-point goal constraints in respect of said outcome,

associating each goal constraint with an upper point of preference, and a lower point of preference, a first weighting value for deviations below said lower point of

preference, and a second weighting value for deviations above said upper point of preference,

providing weightings to a region included between said points of preference by assigning said first weighting value below said upper point of preference and said second weighting value above said lower point of preference and defining an overall weighting within said region as a minimum of said weighting values,

using said included region, said weightings, and said minimum to consider said plurality of goal constraints with other goal constraints to arrive at successive offers to achieve said outcome.

357.   (New) Method for supporting negotiation between parties to achieve an outcome, the method using a computerized apparatus, the method comprising:

defining goal constraints comprising a plurality of pairwise variable trade-offs each pairwise tradeoff having at least two points and a trade-off function for deviating from a line drawn between said points,

preventing inconsistent inclination values to be defined by not accepting more than one trade-off that refers directly or indirectly to a same pair of variables, and

negotiating with other parties via goal programs to achieve an outcome consistent with said constraints.

358. (New) Method for supporting negotiation between parties to achieve an outcome, the method using a computerized apparatus, the method comprising:

defining a plurality of constraints relating to pairwise trade-offs, each pairwise tradeoff having at least two points and a trade-off function for deviations from a line extending therebetween,

warning users of inconsistent inclination values by outputting a warning whenever a trade-off being entered refers directly or indirectly to a pair of variables already included in a previously entered trade-off, and

negotiating with other goal programs to achieve an outcome consistent with said constraints.

359. (New) Method for supporting negotiation between parties to achieve an outcome, said method using a computerized apparatus, the method comprising:

defining at least one objective function in respect of said outcome,

associating said objective function with a series of variables and disjunctive constraints, said associating comprising translating a disjunctive expression into at least one linear conjunctive expression,

using said series of variables including said linear conjunctive expression to negotiate an outcome consistent with said goal program and with other goal programs.

360.   (New) Method for supporting negotiation between parties to achieve an outcome, the method using a computerized apparatus, the method comprising:

defining goal programs in respect of an outcome, said defining comprising inputting data relating to said goal program, and translating said data into a plurality of objective functions and a plurality of constraints on each of said objective functions within said goal program,

finding best values for said objective functions under constraints,

obtaining a best solution for the goal program for output as a first offer, and then iteratively to produce further solutions until an offer is accepted, thereby to achieve said outcome.

361.   (New) Method for supporting negotiation between parties to achieve an outcome, the method using a computer, the method comprising:

defining goal programs in respect of an outcome, said goal programs having a plurality of solutions in respect of said outcome, said defining comprising inputting values, and translating said values into objective functions and constraints on said objective functions within said goal program,

comparing goal program solutions by evaluation of said goal program for each one of a series of proposed solutions and ranking the solutions according to said evaluations, and

using said ranking to apply preference to different solutions.

362.   (New) Method for supporting negotiation between a local party and an opponent party to achieve an outcome, the method using a computerized apparatus, the method comprising:

receiving a local party's goal program and an opponent's goal program to be unified, said goal programs each comprising a plurality of objective functions associated with respective constraints and being arranged in successive levels,

finding best solutions to goal programs, connected to find best values for said plurality of objective functions and respective constraints of said local party's goal program levelwise, and

finding worst solutions for goal programs, connected to find worst values for said plurality of objective functions and respective constraints of said opponent's goal program levelwise,

further optimizing and further finding worst solutions in succession level by level to produce successive best local and worst opponent value sets for evaluation therefrom to form level by level offers, and

advancing from one level to another level only following acceptance by said parties of an offer regarding a previous level.

363.   (New) Method for supporting negotiation between a local party and an opponent party to achieve an outcome,   the method using a computerized apparatus, the method comprising:

receiving a local party's goal program, said goal programs comprising a plurality of objective functions associated with respective constraints and being arranged in levels,

finding best solutions to goal programs, comprising finding best values for said plurality of objective functions under respective constraints of said local party's goal program levelwise, and

determining variable improvement directions from monitoring of received offers from said opponent and carrying out value perturbations in said directions using stay close processing,

using optimizing to produce a first offer for a first level,

advancing from one level to another level only following acceptance by said parties of a unification offer regarding a previous level, and

using said stay close processing to produce a first offer for each subsequent level.

364.   (New)   A resource negotiator method for making successive offers for usage of a resource with at least one remote party based on a goal program of a local party, the method using a computerized apparatus, the method comprising:

receiving data from said remote party from which to formulate a goal program for a local party and for a remote party, the goal program comprising a plurality of objective functions, at least one of said objective functions having a goal associated with a target value, an upper bound, a lower bound and at least one constraint,

producing successively worsening minimizations of said goal program, and

formulating said minimizations into offers for resource usage for sending to said remote party.

365.   (New) A resource negotiator method for negotiating for usage of a resource with a plurality of remote parties based on a goal program of a local party, the method using a computerized apparatus, the method comprising:

receiving data from said remote parties from which to formulate said respective goal programs, the respective goal program comprising a plurality of objective functions with associated goal constraints, at least one of said goal constraints having at least one variable with an upper bound, and a lower bound,

calculating a value required to be provided by remote parties of said plurality of objective functions, said calculating being my minimizing, and

receiving offers from said remote parties, comparing said calculation with said offers and for accepting one of said offers based on said minimizing.

366.   (New) A resource negotiator method for negotiating for usage of a resource with a plurality of remote parties based on a goal program of a local party, the method using a computerized apparatus and comprising:

receiving data to formulate said goal program of said local party, the goal program comprising a plurality of objective functions, each having at least one goal comprising a variable assignable with at least one of an upper bound, and a lower bound,

monitoring remote parties remaining active in said negotiating,

successively decreasing a value of respective predetermined objective functions,

ending said negotiation at a time at which only a predetermined number of remote parties remains active, and at a corresponding value of a respective predetermined objective function, and

deeming said negotiation successful if said corresponding value is within any assigned bounds, said predetermined number being related to a number of available resources.

367.   (New)   Method for performing ranking between database entries, each of said entries comprising a series of values arranged in fields, the method using a computerized apparatus, the method comprising:

taking data from a user and defining therewith a goal program having a plurality of variables, said plurality of variables thereof being related to said fields, and

performing ranking amongst said entries in accordance with said goal program and said plurality of variables.

368. (New) Method for supporting negotiation between parties to achieve an outcome, the method using a computerized apparatus, the method comprising:

receiving an overall deal request from a first party relating to multiple items, and having a plurality of parameters, and availability data from at least one second party relating to available items,

partitioning of said deal request into a plurality of sub-deals each corresponding to at least one item of said sub-deal request that is to be obtained from a single second party, such that said deal request overall is applicable to one or more second parties, and

selecting second parties for each sub-deal such as to minimize a plurality of parameters including a cost parameter for said first buyer for said deal request.

369. (New)   Computer readable means for supporting negotiation between parties to achieve an outcome, the computer readable means carrying a program for carrying out the method of:

a) defining a goal program of a respective party in respect of said outcome, said goal program comprising a plurality of objective functions, each objective function having at least one goal expressed by at least one constraint comprising at least three variables, said variables being any member of the group consisting of

deviation variables, decision variables target values and a combination thereof, said member being usable to form said objective function,

b) associating each of said objective functions with a level of importance,

c) assigning each of said goals an importance weighting within its level, and

d) assigning to deviation variables within each objective function a respective importance weighting, said party goal program means comprising a party input unit for allowing a party to provide data for a respective goal program,

a) receiving a goal program of at least one of said respective parties, and

b) carrying out negotiations using said at least one goal program by considering said objective functions levelwise in the respective goal program to approach at said mutually compatible outcome by carrying out minimization at a respective level, therewith to form an offer,

offering said offer to said respective parties,

receiving from respective parties either counter offers or acceptances,

providing counter offers expressed as modified goal programs for further negotiation, and advancing to a next level upon an acceptance.

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